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APPLICATION NO./ CONTROL NO.	FILING DATE	FIRST NAMED INVENTOR / PATENT IN REEXAMINATION	ATTORNEY DOCKET NO.
09/620,521	07/20/00	ABELS	T 264001183

EXAMINER

PM82/0827

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ART UNIT	PAPER
3661	5

DATE MAILED: 08/27/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

TAN NGUYEN
PRIMARY EXAMINER

PTO-90C (Rev.3-98)

Office Action Summary	Application No.	Applicant(s)	
	09/620,521	ABELS ET AL.	
	Examiner	Art Unit	
	DALENA TRAN	3661	

-- The MAILING DATE of this communication appears on th cover she t with the correspond nce address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 July 2000* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *4* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Notice to Applicant(s)

1. This application has been examined. Claims 1-20 are pending.

2. The prior art submitted on 9/11/00 has been considered.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1,3,5, and 9-10, as understood by examiner, are rejected under 35 U.S.C.103(a) as being unpatentable over Avitan (6,050,770) in view of Yuki et al. (4,520,443).

As per claims 1 and 3, Avitan discloses an industrial truck, comprising: a plurality of wheels, a load lifting system, and a drive system (see column 5, lines 12-57), and a stabilizing device (see the abstract; and column 6, lines 33-68). Avitan does not mention load sensors, and load sensors are connected to the monitoring device. However, Yuki et al. mention load sensors, and load sensors are connected to the monitoring device to control or regulate at least one of the load lifting system and the drive system (see the abstract; and columns 6-8, lines 5-29). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Avitan by mention load sensors, and load sensors are connected to the monitoring device to control or regulate at least one of the load lifting system and the drive system for

effectively control running attitude of the truck lifting due to lifting height control or tilting angle of an upright.

As per claim 5, Avitan discloses the monitoring device includes an evaluation unit configured to determine at least one of transverse tipping forces, longitudinal tipping forces, tipping moments, and load weight (see columns 9-10, lines 28-8).

As per claim 10, Avitan discloses the industrial truck is a counterbalanced fork lift truck (see columns 2-3, lines 66-13).

As per claim 9,Yuki et al. discloses displaying at least one of a load, a load moment, a truck speed, an acceleration, a turning radius, and tipping forces (see columns 8-10, lines 30-54).

5. Claim 2, as understood by examiner, are rejected under 35 U.S.C.103(a) as being. unpatentable over Avitan (6,050,770) and Yuki et al. (4,520,443) as applied to claim 1 above, and further in view of Ishikawa (5,947,516).

As per claim 2, Avitan and Yuki et al. do not mention the monitoring device is connected with actuator units for at least one of inclination of a lifting mast, adjusting the height of a load, adjusting vehicle speed, adjusting vehicle acceleration, adjusting braking intensity, and adjusting steering angle. However, Ishikawa mention that (see columns 2-4, lines 63-28). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Avitan and Yuki et al. by mention the monitoring device is connected with actuator units for at least one of inclination of a lifting mast, adjusting the height of a load, adjusting vehicle speed, adjusting vehicle acceleration, adjusting braking intensity, and adjusting steering angle to

maintain the vehicle in a stable state in accordance with the load weight and the load height during lifting or transportation of objects.

6. Claims 4,12, and 13, as understood by examiner, are rejected under 35 U.S.C.103(a) as being unpatentable over Avitan (6,050,770), Yuki et al. (4,520,443), and Ishikawa (5,947,516) as applied to claims 1 and 2 above, and further in view of Takagi et al. (5,937,965).

As per claims 4,12, and 13, Avitan, Yuki et al., and Ishikawa do not clearly mention at least one wheel on each side of the front axle of the truck has a wheel bearing with an integrated wheel load sensor. However, Takagi et al. mention that (see column 3, lines 39-61). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Avitan and Yuki et al. by mention at least one wheel on each side of the front axle of the truck has a wheel bearing with an integrated wheel load sensor to accurately determine the weight load in the wheel for control stability of the vehicle.

7. Claims 6-8,11, and 17-19, as understood by examiner, are rejected under 35 U.S.C.103(a) as being unpatentable over Avitan (6,050,770), Yuki et al. (4,520,443), and Takagi et al. (5,937,965) as applied to claim 1 above, and further in view of Hayashi (4,828,066).

As per claims 6, and 17-19, Hayashi mention speed of rotation sensor are connected to the monitoring unit (see columns 3-4, lines 50-65).

As per claims 7 and 11, Takagi et al. mention speed of rotation sensor are located on the same axle (see columns 4-5, lines 19-35).

As per claim 8, Hayashi mention measure the speed of the truck (see the abstract). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Avitan,Yuki et al., and Takagi et al. by mention measure the speed of the truck for controlling the lifting force of the truck in accordance with the speed when the truck is moving.

8. Claims 14-16, as understood by examiner, are rejected under 35 U.S.C.103(a) as being unpatentable over Avitan (6,050,770), and Yuki et al. (4,520,443) as applied to claim 1 above, and further in view of Young et al. (6,062,804).

As per claims 14-16, Avitan, andYuki et al.do not clearly mention evaluation unit to determine at least one of transverse tipping force, longitudinal tipping forces, tipping movements, and load weight. However, Young et al. mention that (see columns 3-5, lines 53-2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Avitan, and Yuki et al. by mention evaluation unit to determine at least one of transverse tipping force, longitudinal tipping forces, tipping movements, and load weight to maintain vehicle stability.

Claim 20 is method claim corresponding to truck system 1-19 above. Therefore, it is rejected for the same rationales set forth as above.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

. Allen (3,677,427)

. Fink (3,815,116)

. Downing et al. (4,168,934)

. Olson (4,714,399)

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner Dalena Tran, whose telephone number is (703) 308-8223. The examiner can normally be reached on Monday-Friday from 7:00 AM-4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Cuchlinski, can be reached on (703) 308-3873.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 305-7687, (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park V, 2451 Crystal Drive, Arlington. VA., Seventh Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-1113.

/dt
August 21, 2001

TAN NGUYEN
PRIMARY EXAMINER